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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,044	05/11/2001	Sergey Doudnikov	CIT/K-146	5077

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EXAMINER

PATEL, SHEFALI D

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/853,044	<b>Applicant(s)</b> DOUDNIKOV ET AL.	
	<b>Examiner</b> Shefali D. Patel	<b>Art Unit</b> 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Pre-Brief Appeal Conference***

1. Pre-Brief Appeal Conference was mailed on June 1, 2006. The decision was made to re-open the prosecution in result of persuasion of applicant's arguments. The prosecution is hereby re-opened by the office.

### ***Response to Arguments***

2. Applicant's arguments, see pre-brief appeal remarks on pages 2-4, filed April 17, 2006, with respect to the rejection(s) of claim(s) 1-22 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Woodgate et al. (US 6,014,164).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Woodgate et al. (hereinafter, "Woodgate") (US 6,014,164).

With regard to **claim 1** Woodgate discloses an apparatus for displaying a three-dimensional image, which synthesizes an aspectogram comprising, at least three two-dimensional microimages of a scene and regenerates them in a three-dimensional image of the scene (please see Figure 4), the apparatus comprising: a detector for tracing movement of an observer head that observes the three-dimensional image, in real time and detecting a position of the observer head (tracking detector 34, col. 6 line 44 and tracking the observer by the illumination system throughout the specification (i.e., col. 5 line 46, line 58,

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etc.); col. 8 line 66 to col. 9 lines 1-12); and a compensator for adjusting a viewing zone of the three-dimensional image that is synthesized from the at least three two-dimensional microimages (col. 4 line 64 to col. 5 lines 1-9) AND/OR (compensating distortion of said three-dimensional image by manipulating the aspectogram in accordance with a signal input from the detector).

With regard to **claim 2** Woodgate discloses the detector comprising a head tracking system (col. 6 line 44), which traces movement of the observer head in real time, and a head position detector for calculating the position of the observer head traced by the head tracking system (col. 6 lines 22-34; col. 8 line 66 to col. 9 lines 1-12).

With regard to **claim 3** Woodgate discloses the compensator comprising **either** a viewing adjust engine which adjusts the viewing zone of the three-dimensional image by moving the at least three microimages in accordance with a signal input from the head position detector (adjusting the view zone at col. 4 line 65 to col. 5 line 10; col. 8 line 66 to col. 9 line 12), **or** (a device which regenerates the at least three microimages of the scene in accordance with the signal input from the head position detector to compensate distortion of the three-dimensional image).

With regard to **claim 4** Woodgate discloses an aspectogram comprising at least three two-dimensional microimages of a scene; a microlens array for synthesizing the at least three two-dimensional microimages and regenerating them in a three-dimensional image of a scene (see Figure 4); a head tracking system for tracing movement of an observer head that observes the three-dimensional image, in real time (tracking detector 34, col. 6 line 44); a head position detector for calculating a position of the observer head traced by the head tracking system (col. 6 lines 22-34; col. 8 line 66 to col. 9 lines 1-12); and a viewing adjust engine for adjusting a viewing zone of the three-dimensional image by moving the at least three microimages in accordance with a signal input from the head position factor (col. 4 line 64 to col. 5 lines 1-9).

With regard to **claim 5** Woodgate discloses a device, which regenerates the at least three microimages of the scene in accordance with the signal input from the head position detector to compensate distortion of the three-dimensional image (col. 4 line 64 to col. 5 lines 1-9).

With regard to **claim 6** Woodgate discloses the apparatus of claim 5, wherein the regenerated microimages are movable by the viewing adjust engine to form a new viewing zone centered relative to the moved observer head (the angle is being adjusted at col. 5 lines 1-10).

With regard to **claim 7**, Woodgate discloses all of the claimed subject matter as already discussed above in claims 1 and 4 and the arguments are not repeated herein, but are incorporated by reference.

**Claim 8** recites identical features as claim 6. Thus, arguments similar to that presented above for claim 6 is equally applicable to claim 8.

**Claim 9** recites identical features as claim 1 except claim 9 is a method claim. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 9.

**Claim 10** recites identical features as claim 6 except claim 10 is a method claim. Thus, arguments similar to that presented above for claim 6 is equally applicable to claim 10.

With regard to **claim 11** Woodgate discloses compensating distortion of the three-dimensional image as discussed above comprising regenerating the at least three two-dimensional microimages of the scene (every time the observer moves his/her head as seen in Figure 4 the two dimensional images are being regenerated, having a respective center, before image signal converter displays to the observer in three-dimension).

With regard to **claim 12** Woodgate discloses a system for displaying a three-dimensional image of a scene that is generated via an aspectogram comprising at least three two-dimensional images of the scene as disclosed above in claims 1, 4, 7, and 9 and the arguments are not repeated herein, but are incorporated by reference.

**Claim 13** recites identical features as claim 2. Thus, arguments similar to that presented above for claim 2 is equally applicable to claim 13.

With regard to **claim 14** Woodgate discloses a viewing adjust engine that adjusts the viewing zone of the three-dimensional image by moving the at least three two-dimensional images of the scene based on the position signal (col. 4 line 64 to col. 5 lines 1-9).

With regard to **claim 15** Woodgate discloses a device that compensates for distortion by regenerating the at least three two-dimensional images of the scene based on the position signal (col. 8 line 66 to col. 9 lines 1-12).

**Claim 16** recites identical features as claims 14-15. Thus, arguments similar to that presented above for claims 14-15 are equally applicable to claim 16.

With regard to **claim 17** Woodgate discloses the detector detecting the position of the observer by tracking the observer's head (col. 6 lines 22-34 and col. 8 line 66 to col. 9 lines 1-12).

With regard to **claim 18** Woodgate discloses a method of manipulating a three-dimensional image of a scene that is generated via an aspectogram comprising at least three two-dimensional images of the scene (Figure 4), comprising: determining a position of an observer of the three-dimensional image (col. 6 lines 22-34); and manipulating the two-dimensional images of the scene based on the determined position of the observer (col. 8 line 66 to col. 9 lines 1-12).

**Claim 19** recites identical features as claim 17. Thus, arguments similar to that presented above for claim 17 is equally applicable to claim 19.

**Claim 20** recites identical features as claim 14. Thus, arguments similar to that presented above for claim 14 is equally applicable to claim 20.

**Claim 21** recites identical features as claim 15. Thus, arguments similar to that presented above for claim 15 is equally applicable to claim 21.

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**Claim 22** recites identical features as claims 20-21. Thus, arguments similar to that presented above for claims 20-21 are equally applicable to claim 22.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5,936,774 – Autostereoscopic Display

US 5,886,675 – Autostereoscopic Display System with Fan-Out Multiplexer

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D. Patel whose telephone number is 571-272-7396. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shefali D Patel  
Examiner  
Art Unit 2624



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